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EDUCATION

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FRANK HERBERT PALMER, A. M., EDITOR

CONTENTS

	PAGE
The Strategic Position of the Classroom Teacher in the Health Education Program. *Richard J. Schmeyer.*	321
The Homesick Pine. (Poem.) *Will Chamberlain.*	328
Punctuation and Capitalization Errors. *J. Paul Leonard, Ph. D.*	329
The Aesthetic Approach in Character Training. *F. C. Sumner, Ph. D.*	333
Does Creative Thinking Pay Dividends? *Francis Roy Copper.*	341
Christening. (Poem.) *Mrs. C. J. Darcy.*	344
Togetherness in Education. *Lawrence R. Campbell.*	345
Dedication. (Poem.) *Ruth Williams.*	349
Some Educational Implications of Behaviorism. *Otis H. Young.*	351
The Foundation of Science Teaching. *John J. Birch, M. S.*	358
Social Status of Teachers in Norway. *Gabriel E. Loftfield, Ph. D.*	361
Geography in the Teachers College. *Dr. Russell L. Packard.*	367
The New Need of an Auxiliary Language. *Lucia Ames Mead.*	372
American Notes—Editorial	377
Book Reviews	381

Contents of Previous Issues of EDUCATION can be found in the Readers' Guide and also in the Education Index, in your Library.

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EDUCATION

Devoted to the Science, Art, Philosophy and Literature of Education

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The Strategic Position of the Classroom Teacher in the Health Education Program

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IT appears to me that the author of the title of this address had the thought that the struggle against the remediable defects to which our American youth is afflicted was a real one. In order to establish an outpost for the treatment of this significant and important problem which the American classroom teacher must face, I will limit my consideration to the elementary (grades one through six) schools. There may be opportunity at some future occasion to give consideration to the organization and administration of the health education program of the junior and senior high schools.

The word *strategy* in the caption of the address implies a martial connotation. According to the dictionary I find the following definition: "*strategy* is the science of maneuvering an army out of fire of an enemy, as *tactics* is the art of managing it in battle or under fire. Strategy is the greater science, as including all those vast combinations which lead to

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The above address was delivered at the Salem Normal School, Salem, Massachusetts, on Friday, December 12, 1930. The School Hygiene Conference was held at the Normal School under the joint auspices of the State Department of Education and the State Department of Public Health of the Commonwealth of Massachusetts.

subsequent available displays of tactics. Strategic point means every point on the theatre of war which conduces to strengthen the line of operation or of communication."

From this definition I infer that properly controlled tactics will lead to a properly executed strategy,—the winning of an important and comprehensive objection. In the case at point the teacher must be both a tactician and a strategist.

Let us consider, in the first place, the classroom teacher as a strategist. She must be able to comprehend in her way the bigness and comprehensiveness of the campaign of health education which is challenged by the following facts. It is an indisputable condition that two-thirds of the twenty-five million and more school children are afflicted with some defect or defects which cry unto high heaven for correction, if not for prevention. What is the picture and numerical strength of some of these defects?

Fifteen percent, or three million seven hundred fifty thousand, are suffering from a grave form of malnutrition; fifty percent, or twelve million five hundred thousand, have defective teeth; fifteen percent suffer from obstructed breathing due to adenoids and enlarged tonsils; ten percent, or two million, have spinal curvature; one percent, or two hundred which need attention, many of these being tuberculosis; eight percent, or two million, succumb to tuberculosis; fifteen percent have defective vision; three percent, or seven hundred fifty thousand, have defective hearing; four percent, or one million, have spinal curvature; one percent, or two hundred fifty thousand, have organic heart disease; while three percent or more are predisposed to serious nervous disease.

I believe that it is a safe statement to inject at this time that this is a serious situation which needs the wholehearted and intelligent attention of a tactician and a strategist. I am moved to quote from an address which Newton D. Baker, former Secretary of War, made when he accepted recently the American Hebrew Medal for the Promotion of Better Understanding Among Religions. It is as follows: "When men

really have something worth while to think about, they do not think of irrelevant and immaterial things." The American nation has a real problem with this large army of school children who have defects (physical and emotional) which need attention. The classroom teacher must awaken the public to the presence of this mighty cohort and enemy,—the physically handicapped school child.

THE CLASSROOM TEACHER AS A STRATEGIST.

As a strategist the teacher must be thoroughly and intelligently acquainted with the Nineteen Points of the Child Health Conference which was held recently at the White House.[1] She should pay particular attention to points 3, 4, 5, 6, 7, 8 and 14.

The medical service department of the local public health department or of the school department must give her assistance if she is to accomplish in any respect whatsoever her final goal. She must know that the physician who visits her classroom and who gives educational and medical service to the pupils is an educator who has been dipped and immersed in educational psychology, educational philosophy, educational procedures and practices, educational organization and administration, child psychology, laws of learning,—in short, must sympathize and understand her classroom problems. The visits and service of the school physician must be frequent and productive of those desirable ends which make for the correction of remediable defects, of prevention, of stimulation of interest and agitation in personal hygiene, classroom and community hygiene and physiology by teacher and pupils.

In order to accomplish some or all of the above mentioned benefits there must be frequent conferences and opportunities for discussions between the principal of the school, teachers of the school, and physician. Discussions between these three parties might resolve around the following problems. "Structure, Function, and Care of the Human Machine," "Protection

1 "Nineteen Points of the Child Health Conference," New York Times, Sunday, November 23, 1930.

Against Communicable Diseases to Which the Child is Exposed in School, at Home, and at Play," "The Value of Pure Food, Milk, and Water." This list may be extended, *ad infinitum*.

Another department of offence and defence in which the strategist must be thoroughly trained and schooled is the support and service which the administrative staff, line, and headquarters of the schools can render. The classroom teacher must receive the active and wholesome support of the central staff, which will give her the paraphernalia and habiliments to marshal her policy. What is some of this paraphernalia? Warm water, paper towels, adequate drinking facilities, an understandable ventilating system which functions properly, seats which are adapted to the size, age and grade of the pupils, ample window space for natural light, controllable shades, sufficient space for play purposes, and many other favorable physical features, are some of these essential implements.

If the classroom teacher is expected to have a distant viewpoint, the school officials must supply the tools. It appears foolhardy to expect complete results unless the means are supplied.

The classroom teacher must respect and understand thoroughly, completely, and *in toto* what the nurse is doing and attempting. The policy and program of the nurse must be established clearly by those who hire her. The employer may be the department of public health or the schools. The commissioner of health, the superintendent of schools, the supervisor of nurses, the school principal, the director of health and physical education, the nurse, and the classroom teacher, must share in the responsibility of organizing this policy. This end, it appears to me, can be accomplished by conferences of the various groups and the privilege of the nurse to attend the school building meetings of teachers. Such a policy presupposes the districting of nurses. The

cause of the nurse and her educational program will be strengthened by the exercise of this expediency.

The teacher has the right and privilege to call upon, through the principal, the special service departments, viz., attendance department, visiting teacher, lip-reading teacher, psychologist, speech correction teacher, physical education supervisor, psychiatrist, and others for assistance when educational shock troops are needed.

The program of the janitorial staff must be understood by the teacher. She must know the significance of charwomen and janitors.

I hope that the teacher sees the problem of health education in its entirely and its wholeness. She must see beyond the immediate problems, sectors, objectives, and local charts. She must visualize and imagine many points of contact that may or may not materialize.

Be not alarmed, strategist,—our war and our cause at present is a slow guerilla warfare. The nation has not awakened to the impending struggle to which you are subjected. The classroom teacher might lose many a battle as a tactician, but she will win the war for the American child as a strategist if the various lines—physicians, nurses, school officials, school employees, pupils, and parents—follow her commands. She must be given unstinted assistance if she is to accomplish her "Hill of Health," and if she is to survey properly and adequately her far-flung line of educational defence and offence.

The Classroom Teacher as a Tactician.

The classroom teacher must know the immediate policy, program, and objectives of health education. Some of these objectives[2] are:

2 "Tentative Outline, Health Education, Cleveland Public Schools."
"The Hygiene of the School Child," by Terman and Almack.
"Joint Report of American Medical Association and National Educational Association on Health Education," 1930.
"A Scientific Basis for Health Instruction in Public Schools," by Laura Cairns, University of California Publications in Education, Volume 2, No. 5, pp. 339-434, University of California Press, Berkeley, California, 1929.
"Health and Physical Education for Public School Administrators," by Williams and Brownell, Bureau of Publication, Teachers College, Columbus, Ohio.

Tactics: 1. Understand the policy, program, and objectives of health education; viz.:

(A) to have physical defects corrected in so far as possible.
(B) to eliminate and reduce the amount of communicable disease.
(C) to coöperate with the department of physical education.
(D) to arrange for hygienic classroom conditions.
(E) to interpret the school health program to the parents and secure their coöperation.
(F) to organize regular periods of classroom activities other than teaching units, so that they will contribute to the promotion of the general health program.
(G) to establish and maintain specific health habits.
(H) to see to it that the children acquire definite and well-defined health knowledge.
(I) to develop desirable mental attitudes toward health, health practices, and life situations.

The daily grind, the zero hour, the barbed-wire of ignorance to be cut, the box barrage of the opposition in the form of indifference, misunderstanding, and *laissez faire*, the capacity to hold the objective, the grin and grip that wins, and other admirable assets are some of the tactics that she must employ. She is not a buck private in the rear ranks, but is a commissioned officer in the front line. She is to question why, and not necessarily to follow blindly. If she is to stay in the front line trenches (her classroom) (with all the other responsibilities placed upon her) she must know the map and chart of the sector of health education, and she must be supplied with shock troops from the medical staff, from the nurses' staff, from the central school staff, from the principal of the school, from the parents, from the home, from the parent-teachers association, from the municipal department (mayor, city council, and its agencies and agents), from the welfare associations, and from the city chest.

Let us think of the tactics which she will utilize to have

physical defects corrected in so far as possible (one objective of health education).

She knows more or less intimately the I. Q. and the A. Q. of her pupils. If she is a good tactician, she will know the H. Q. (the health quotient) of her charges. She will know and understand the significance of the physical record on which the doctor and the nurse enter health facts about the child. She will send home a health report of the pupil at sufficiently frequent intervals to arouse the parents in one way or another. The teacher knows that indifference to remediable defects is a serious matter. She has the privilege of asking the following question: "If a physical defect is not corrected, who shall receive the demerit,—the pupil, the parents, the community, the school, or herself?"

The tactician is always on the alert to detect a deviation from normal behavior of her soldiers,—the pupils. Such deviations may be nervousness, squinting, listlessness, mouth breathing, and others. She will protect the pupils from the one who contaminates the group by exclusion.

The teacher discusses with the child and the parent the probable effect of the child's physical handicaps upon his success in school work.

The child, if it has been properly trained and directed in the home and at school, will welcome the services of the nurse and the doctor and the dentist and the dental hygienist. It will strive to have the defects corrected.

Another tactic will be to eliminate and reduce the amount of communicable disease.

The tactician and the doctor and the nurses must work hand in glove on this important matter.

If the teacher is to be a strategist as well as a tactician, she must have a curriculum (a course of study) which she has helped to formulate. She must be given a chance to express herself. The doctor, the nurse, the dentist, the specialist of various fields aforementioned, the janitor, and in fact all agents of the schools, have offered their suggestions to this

essential instrument of education—the curriculum, which is a "partnership of educational experience."

Neither time nor space will warrant the favorable consideration of the many objectives of health education which must be left undone in this address. May these policies and objectives become the clarion call for all to consider in curriculum construction meetings in health education in your community.

You, the classroom teacher of today, who is the prospective superintendent, supervisor, or director of tomorrow, can marshal the forces for the elimination of children's defects, for the establishment of a preventive health program, and for the rise of a new America.

The Homesick Pine

Among the crags I found a clinging pine—
A tiny, struggling waif, it seemed to me.
Tenderly I claimed the sapling mine,
And bore it from the mountains' majesty.

"In thick, dark soil I'll give it root," I said.
"This poor, starved sprig shall loom where prairies sweep.
Proud and serene my tree shall lift its head,
Where corn and wheat their cosmic vigils keep."

But all my brave intentions, coddling, care
Proved vain and futile, for my baby ward,
After a homesick battle—or a prayer—
Became a dead thing on the lavish sward.

But this it left with me—a lesson true:
God picks for thee and man—let us not mock.
He knows the place, no spruce nor pine will rue,
Nor fault him if he give to them the rock.

WILL CHAMBERLAIN,
Yankton, South Dakota

Punctuation and Capitalization Errors

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HOW frequently do people make errors with the common rules of punctuation and capitalization in writing their compositions? The answer to this question obviously differs with the grades and ability levels of the people considered. Two methods may be used to determine these errors, namely, (1) counting the actual errors made in ordinary classroom compositions; and (2) by administering to groups a valid proofreading test and interpreting the results in terms of the class. Several studies have shown a satisfactory relationship between achievement on proofreading tests and on compositions for groups of pupils.[1] The author will have completed within a few weeks a study showing the errors made on proofreading tests in twenty-six rules of capitalization and punctuation by over 5,000 pupils in several public schools. The purpose of this present study was to determine the number and percentages of error made on compositions with several rules of punctuation and capitalization by pupils of superior ability.

PROCEDURE.

For the purpose of this study 44 pupils from grade 8 and 38 pupils from grade 9 were chosen from the Ethical Culture

1 For example see—Briggs, Thomas H. "New Form Tests in English." Teachers College Record, Volume 22, January, 1921, pp. 1-9.
Willing, Matthew H. "Valid Diagnosis in High School Composition." Teachers College Contributions to Education, No. 230. Teachers College, Columbia University, 1926.
Leonard, J. Paul. "The Use of Practice Exercises in Teaching Capitalization and Punctuation." Teachers College Contributions to Education, No. 372. Teachers College, Columbia University, 1930.

School in New York City. No basis of selection was used except ease of administration. The pupils in the school were not sectioned either on the basis of intelligence test scores or achievement test scores. By virtue of their attendance at the Ethical Culture School the pupils were naturally somewhat selected. The average I. Q. of the groups was approximately 120. Previous standard English tests, given in the course of regular English instruction, had shown these pupils to be considerably above their grade norm in achievement in capitalization and punctuation.

Each pupil was asked to write five compositions on the following conventional assignments: "My Summer Vacation," "My Most Thrilling Experience," a social letter, a "question" letter, and a review of a book or play. The "question" letter was given to make certain that each pupil would have an opportunity to use question marks, proper nouns, and some quotation marks. Many have a tendency to keep from using many marks they fear using incorrectly. In counting composition errors of this kind one is never certain that the pupil used all the marks he knew how to use correctly, or that the ones he refrained from using were omitted intentionally for fear of making errors with them. The directions for the question letter were as follows:

"Imagine that a friend has asked you a question which you cannot answer. Write me a clear, complete, and definite letter, heading it as though you were at your parents' home. Address it to me at the Ethical Culture School. Begin it by saying: 'A friend recently asked me this question'; then state the question in the exact words the friend used. Tell me who your friend is and why he is interested in the answer to the question; and, in the question form, ask me if I will answer it for you. Use the form you think best suited to such a letter. Sign your name in full."

No directions were given for writing the compositions except that the pupils would be given forty-five minutes to write on the subject and to use the best form and punctuation they knew how to use. Each of the 82 pupils wrote all five com-

positions. There were 410 compositions written, with a total of 80,855 words,—46,022 in the eighth grade and 34,833 in the ninth grade.

In order to analyze compositions uniformly for errors, one must have an error guide. The one used by Willing in his composition study (referred to previously on the first page) was first selected. This guide contains a total of 117 items. Many of these items, however, did not refer to material used in the compositions, so the author chose 68 items from this guide to use in scoring the compositions. One hundred twenty-five compositions were then scored by this guide to determine the frequency of errors. It was found that many of these items were never used, and others so seldom used that the author decided to check the rest of the compositions on the basis of the ten most frequently used items shown by the results of the scoring of these one hundred twenty-five compositions. A tie between two items caused the selection of eleven items as follows:

1. A period shall be used at the end of declarative and imperative sentences.
2. The first word of each sentence shall be capitalized.
3. All proper nouns must be capitalized.
4. Common nouns must not be capitalized.
5. Interrogative sentences end with a question mark.
6. Words, phrases, and clauses in series shall be separated by commas.
7. A comma shall be used before "and" when used in a series.
8. Commas shall be used to set off such words as "also, nevertheless, namely, therefore, however," etc., when used parenthetically.
9. Commas shall be used to set off phrases and clauses when used parenthetically.
10. The apostrophe shall be used to indicate the possessive of nouns. (This rule as stated covered the use of the apostrophe with both singular and plural nouns.)
11. The apostrophe shall be used with contractions to mark the omission of letters.

Using these eleven items as an error guide, all 410 compositions were scored twice; once for the number of errors made on each of the items, and again for the number of opportunities to make errors on each of the eleven items. The percentage of error referred to later in the study were obtained by dividing the number of errors by the number of opportunities for making the errors. A total count of errors is valueless apart from the number of opportunities for committing the errors. Also without a percentage of error it is impossible to make errors comparable.

Results.

The total number of errors and of opportunities for errors on each of the eleven items is shown in the following table.

Table 1

Total number of errors and opportunities for errors made by 82 pupils on 410 compositions, grades 8 and 9, in eleven items of punctuation and capitalization.

Item No. (see list on page 2)	Grade 8		Grade 9	
	Opportunities for errors	Errors	Opportunities for errors	Errors
1	2574	189	1933	54
2	2978	110	2091	28
3	7100	183	5093	101
4	1776	92	1345	75
5	166	48	90	33
6	230	11	286	18
7	94	51	95	57
8	604	516	662	336
9	320	295	223	159
10	254	33	196	9
11	94	24	65	18

Table number 2 translates the results in table number 1 into terms of percentages of error.

TABLE 2

Mean percentages of error made by 82 pupils in grades 8 and 9 on 410 compositions in 11 items of capitalization and punctuation.

Item No.	Percentages of Error Grade 8	Grade 9	Average percentage of error for both grades
1	7.38	2.78	5.08
2	3.69	1.34	2.52
3	2.58	1.98	2.28
4	5.18	5.57	5.38
5	28.91	36.66	32.79
6	4.78	6.29	5.54
7	54.25	60.00	57.13
8	85.43	50.77	68.10
9	92.19	71.30	81.75
10	25.53	27.69	26.61
11	12.95	4.59	8.77

Table number 3 shows the percentage that errors in each item are of all errors made.

TABLE 3

Percentages that errors in each item are of total errors made. 82 pupils' compositions in grades 8 and 9.

Item No.	Percentages that errors in each item are of total errors made
1	9.95
2	5.65
3	11.63
4	5.84
5	3.32
6	1.18
7	4.42
8	34.91
9	18.61
10	1.72
11	1.72

Several conclusions may be drawn from these data.

1. With these pupils there seems to be no consistent growth in ability to punctuate and capitalize from grade 8 to 9. Small growth may possibly be evident in items 1, 2, 8, 9, and 11. There seems to be no improvement in items 3 and 4, and a marked recession is noticed in items 5, 6, 7, and 10.
2. These pupils seem to make the greatest number of errors with items 8 and 9, the rules requiring commas for parenthetical words, phrases, and clauses; item 7, the rule for the comma before "and" when used in a series; and items 5 and 10, the rules for terminal question marks and the apostrophe of possession. These rules are rather difficult ones, numbers 8 and 9 being complicated internal punctuation, and number 10 involving an understanding of many things and should not be urged upon the pupil until he has done three things: (a) mastered the beginning and end sentence punctuation and capitalization, (b) discovered a need for these marks in his own composition writing, and (c) caught the significance of internal sentence punctuation.
3. There is negligible difficulty with items 1, 2, 3, 4, 6, and 11—rules for terminal periods, beginning capitals, capitalization of proper nouns, non-capitalization of common nouns, series comma, and apostrophe with contractions respectively.
4. Of all the errors made, the rules for using the comma with parenthetical expressions accounts for about 54% of them. It is difficult for these pupils to determine a parenthetical construction.

   There is probably no good reason for teaching the use of the comma with such words as "however, nevertheless, therefore, etc.," to these pupils at this grade level. If the use of the comma with parenthetical expressions is taught here at all, greater stress needs to be laid upon the relation of non-restrictives, appositives, and all parentheticals to the rest of the sentence. This punctuation must be taught simultaneously with this relationship.

The correct use of the question mark depends upon the pupil's ability to distinguish between direct and indirect ques-

tions and his skill in applying the rule to direct questions only. These pupils seem to have considerable difficulty along this line, as about 33% of the question marks employed were used incorrectly. This construction needs to be emphasized.

When students use marks correctly 90% to 95% of the time they have opportunities to employ capitalization and punctuation, it is needless for the school to devote class time to eliminate these errors. Individual errors with beginning capitals and terminal periods—items 1 and 2—usually grow out of a lack of sentence sense and the case must be treated individually. Strict formal punctuation drill will not eliminate the error. Most errors arising in connection with the capitalization of nouns seem to grow out of a pupil's inability to recognize a proper noun and his desire to emphasize the common noun; hence he capitalizes it.

The rule for using a comma before "and" in a series is needless and need not be taught,—one form is as good as another. Special stress needs to be laid upon the apostrophe of possession. This is not one rule but a group of rules, the understanding of which depends upon the pupil's skill in forming plurals of various kinds and forms of nouns.

The Aesthetic Approach in Character Training

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AMONG recently suggested approaches in character-training, there is one which, in my opinion, deserves far more careful consideration than has been accorded it and, if it is not too early to say so, a fair trial before it be relegated to the limbus of antiquated educational theory. I refer to the *aesthetic approach*.

This approach is based upon three essential principles, of which the first is that the morally good reduces itself to the socially beautiful; the second, that character-training in the light of this aesthetic principle has a two-fold function to fulfil, namely, the bringing about an appreciation for the beautiful in social relationships within the growing child and the stimulation of its activity in the direction of the beautiful in such relationships; the third, that aesthetic character-training has for its first step the conditioning of a love and activity towards the beautiful in non-social spheres.

The theory behind the aesthetic approach in character-training is quite old. Historically, it appears first among the ancient Greeks in their cult of the beautiful. Goodness was here first interpreted in terms of beauty. Nothing was so unthinkable for these beauty-loving people as a beautiful soul in an ugly body and the reverse. The outward parts of man, including also his behavior, were the very expression of his soul, and accordingly, if the body or acts of a man were ugly, so was his soul. This pre-Lombrosian attitude of the Greeks at large was probably more to blame for the death of Socrates than anything else, for in appearance he was ugly and therefore evil. Plato in his poetical equations of

goodness and beauty and in his own personal appearance and behavior reflected the Greek soul probably far better than did his teacher, Socrates. Aristotle, who differed in his doctrines so fundamentally from his teacher, Plato, is nevertheless most in accord with the latter when in his Ethics he resumes in less fanciful guise the equation of the good and beautiful and claims the essence of morality to be in "living in proportion."

Through the succeeding ages of philosophical argument, two principal objections were raised against the confusing of ethics with aesthetics. In the first place, it was critically asked whether the morally good can be legitimately identified with the beautiful, whether the virtuous is not infrequently the homely. Secondly, it is claimed by critics that, the equation of the good and beautiful being granted, it does not follow that an appreciation for the beautiful (or good), which is a rather passive affair, guarantees the execution of the beautiful (or good), which is in an entirely different universe of discourse, namely, that of action. Does, say, the aesthetic appreciation of a public parkway vouchsafe the preservation of it? In the field of music, we know that the appreciation of the beautiful in a tone-poem is quite another thing from the execution of that tone-poem, from the production of that thing of beauty.

In regard to the first objection, it may be said that in the light of our modern positivistic conception of the moral, this appears no longer a tenable criticism. Behavior is considered by us today as good which is in conformance with the social order. For us the very criterion of the social order is neither tradition nor supernatural sanction but rather *beauty* in the sense of harmony, orderly arrangement, symmetry in the structure of the social organization. An act on the part an individual or mob tends to disrupt this social orderliness, to bring about social chaos, offends our sense of beauty, if we have it, and is therefore rightly called ugly and by the same title is vicious, criminal.

In the days when the social order was thought the result of some divinely pre-established harmony or of some equally hallowed tradition, reforms were looked upon with abhorrence. Quite different is our attitude today with the criterion of social order conceived as beauty and with social reformers regarded as architects of the social order who would build for it more stately mansions.

While the morally good is conceived today as the beautiful, the latter, which is a more inclusive term, may not always be the morally good. Thus the beautiful may be of two types: the socially or morally beautiful and the non-socially beautiful. The line of demarcation needs not in reality to be drawn too sharply, for the non-socially beautiful is not infrequently interwoven with the socially beautiful.

That the virtuous is frequently homely is undoubtedly a paradox, the resolution of which brings to light a conflict between the social order in the narrow sense of the home and the social order at large. When home and the social order at large are beautifully attuned, virtues may no longer be regarded as homely either in the literal or in the unaesthetic sense.

With regard to the second objection, relating to the alleged discrepancy between the appreciation of the beautiful and the production of the beautiful, it may be said that this criticism is valid only when the prime tenet of modern educational theory and practice is neglected, namely, the education of the *whole child.*

This educational principle finds most assuredly an application in aesthetic education and especially in aethestic character-training. The child is to be trained not only to appreciate the socially beautiful, but also to execute it. The child must not only like a neat appearance but must actually bring about a neat appearance. It must not only dislike social friction but work towards bringing about social orderliness. It is this activistic phase of aesthetic education which is paramount in connection with character-training. The child thus trained is not only aesthetically sensitive but also aesthetically active.

The point of departure for this aesthetic character-training is not necessarily in the positing of an innate sense of beauty but rather in the fact that the newborn loves or likes something and makes positive reactions to that something. The genetic studies by Watson indicate that the infant does love something in the form of tickling. The many other things which the child comes later to love and to make positive reactions towards are the result of learning or conditioning. In the same manner as the love-response of the child for the mother is learned through co-stimulation of the skin and the eye, so may the love-response be conditioned for harmony, rhythm, symmetry in all their variations. This conditioning of the love-response needs by no means to stop with the so-called non-social stimuli. What is of paramount significance for aesthetic character-training is the fact that this conditioning of the love-response may be carried very easily over into the province of social stimuli. Symmetry, orderliness, harmony in human behavior and social relations in general may be served as substitute stimuli, which thereupon function in the way of eliciting love-responses and positive reactions on the part of the child.

For this conditioning no rigorous laboratory methods, such as Pavlow used in his experiment with the dog, are necessary. The child needs merely to be surrounded from the cradle onward with an environment which is both in its social and non-social aspects symmetrical, orderly, harmonious, in a word, beautiful.

This conditioning of the child to love the beautiful and to strive thereto must be carried still further, so that the child be conditioned to love the beautiful in his own behavior as well as that in the behavior of others. It is mainly in this conditioning of the child to love the beautiful in his own actions that the child comes to behave rightly or beautifully, whether in a non-social or in a social situation.

This aesthetic character-training which has its golden period in the pre-school years, must have its foundations se-

curely laid before the child leaves home at school entrance, so that it may serve to inhibit reactions to the contrary. It is not to be understood, however, that this aesthetic training will cease with the school entrance. At school and on the playground must this training be continued.

In the same manner as the child may be conditioned to love the beautiful in social and non-social spheres, so may it have been trained, by reversing the entire procedure, to love the ugly, the disorderly, and actively to strive for the attainment of the same. In this connection, Brasol in his "Elements of Crime" has indicated as one of several causes for the increase of delinquency the development within the child of a love for asymmetry in general and especially for social disorder in slum sections of our cities. He has very interestingly pointed out the present-day cubistic-futuristic art as being not only a reflection of a morbid love of the disorderly, but also a criminal influence upon the young, in that such art may contribute to conditioning one to love the ugly and ultimately social disorder.

The significance of art as a device for controlling the behavior of people through its appeal to order, rhythm and symmetry has been estimated by Ross, Gowin and Bogardus, not to mention others. Aesthetic character-training combines in itself not only the effectiveness of the art-control but also that of educational control.

We no longer accept Plato's explanation of that mystic reaction to a thing of beauty as the soul's reminiscence of the celestial good, true and beautiful. We are rather inclined nowadays to explain this phenomenon as due to the primacy of pre-school conditioning of one to love the beautiful. We are, however, one with Plato when he maintains the triune nature of the Good, True and Beautiful, and the greatest of these—the Beautiful.

Does Creative Thinking Pay Dividends?

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CREATIVE thinking, the noblest faculty of the human mind, pays extremely high dividends. These dividends may be in the form of wealth, health, comfort, culture, contentment, life or opportunity. They enrich not only the thinker but millions of people as well, for that which is best in creation lives on and on to bless posterity. Creative thinking is that form of mental activity that applies one set of conditions to a new situation in such a way as to bring about a new and significant combination. It involves that type of imagery that sees the old in new patterns. It requires new associations, the forming and testing of many plans and the selection of the right ones.

When the Creator formed man he endowed him with a mental capacity which enabled him to be a co-partner in carrying on the creation already started. Man has fulfilled this mission to a remarkable degree through creative thinking, without which there could have been no creative works, for every invention, discovery and production existed in thought before it did in reality.

Anything that brings about a greater measure of health to a large number of people is certainly paying large dividends. The overcoming of malarial fever involved the conception of a new pattern for the cause of the disease. First it was necessary to doubt and then to break down the old erroneous belief that the fever was caused by the miasma that arose from the swamps, and then to form a counter theory that is was caused by the bite of the mosquito, and finally to prove this hypothesis. As a result of this piece of creative thinking, the civilized world is practically free from malaria

today. Or let us take the matter of overcoming smallpox. Jenner, an English surgeon, starting with the assumption which was current in his day, that if a person had had cowpox, he therefore could not take smallpox, worked out the process of vaccination, thus saving the lives of literally thousands of people and preventing multitudes of others from being pock-marked for life by the terrible disease.

The world is also reaping large dividends because of the creative spirit of Lister, the English surgeon who developed antiseptic surgery. In his time about fifty percent of the wounded men in the hospitals died of infection in their wounds. Lister, having read Pasteur's essay setting forth the belief that putrefaction was caused by bacteria, reasoned that the infection in the wounds was caused by bacteria from the air. How to prevent these bacteria from infecting the wounds was his immediate problem. About this time he heard that in Carlisle, England, they were using carbolic acid to allay sewage stench. This suggested to him that carbolic acid must have germicidial power, and if so he could use it in the solution of his own problem. He, therefore, soaked his dressings in this acid, thus preventing the entrance of bacteria into the wounds and making surgery safe for humanity.

If we turn to invention, the flower of creative thinking, we find the dividends equally high. Samuel B. Morse proved himself a benefactor to the world when he succeeded in sending a message in code over a wire, thereby making quick communication possible. Likewise Bell rendered great service to humanity when, by inventing the telephone, he robbed isolation of much of its terror and multiplied the convenience of mankind a thousand-fold. Also a group of people who invented the radio, brought education, culture and comfort to literally millions of people. Some one has said that the steam engine, which has revolutionized commerce and transportation, is simply Watt's creative thoughts dressed up in iron clothes. The Phoenicians did a profitable piece of work

when they invented the alphabet, as did Gutenberg when he invented the printing press.

Turning to the realm of scholarship, we find that creative thinking gave to the world a vast store of history by opening up the long-sealed libraries of Egyptian learning. The story is that in 1799, near the Rosetta branch of the Nile River, some French officers of Napoleon's engineering corps found the Rosetta stone which contained three parallel inscriptions, one in hieroglyphics, one in Greek, and one in Egyptian demotic. In trying to decipher the writings, Champollion, the French scholar, conceived the idea that perhaps the three inscriptions told the same story. This suppositon proved to be correct, and since the Greek inscription could be read, it was possible in time to read the other two and thereby open up a great field of knowledge which for centuries had remained closed.

Our own cherished Constitution represents a composite type of creative thinking on the part of the best minds of the times. The statesmen reached over into England and took some of the aspects of government which worked well there, some of the best features of local government in this country, and some ideals which had not been tried out but which were befitting a liberty-loving people, and welded them together so perfectly into this great state paper that it has required very little alteration since.

Some of the biggest returns from creative thinking are creative seeing and doing. This is well illustrated in the poem "The Seeing Eye," by Margaret L. Farrand:

> "A curve in the road and the hillside
> Clear cut against the sky;
> A tall tree tossed by the autumn wind,
> And a white cloud riding high.
> Ten men went along that road;
> And all but one passed by.

"He saw the hill, and the tree and the cloud
With an artist's mind and eye;
And he put them down on canvas—
For the other nine to buy."

Creative thinking has woven our fine ideals of human conduct into beautiful ethical systems and our thoughts into intellectual philosophies. It has transformed possibilities into actualities, emancipated man from drudgery, fear, superstition and ignorance, enlarged his sphere of usefulness, widened his perspective and brought to him greater understanding, peace and joy.

Chastening

In the palm of my hand
I held success.
Then the great gods cried,
"Are you sure of this?"

And they showed me the stars
And the horned moon
And the beauty that springs
From a drab cocoon.

They showed me steep crags
And the far-flung seas:
With triumph they called:
"Can you equal these:

The myriad forms
Of the swirling snow,
The fragrance of flowers,
The winds that blow?"

And I felt in my soul
A chastening,
A wistful yearning
Where pride had been.

Mrs. C. J. Darcy,
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Togetherness in Education

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TODAY the we-feeling, the sense of at-one-ness, the spirit of togetherness, is needed in education. Challenged by a century unequalled in scientific and industrial progress we are confronted with problems demanding our combined efforts, if they are to be solved. The socialization of youth for diverse environments and opportunities is the responsibility resting upon teachers, school masters, and educators everywhere. Whether they come from elementary or secondary, rural or urban, public or private schools they are needed to develop the more effective education of tomorrow.

Let us realize that there can be real unity without absolute uniformity just as we can maintain higher standards without too much standardization. Indeed, the ideal of a Fordized educational system turning out a standard product of goose-stepping robots is being forgotten. Hence in the maximum development of human potentialities for the immediate and ultimate needs and duties of life we are to take for granted that there is no single route nor rigid routine by which that objective can be achieved. Youth's great adventure of self-discovery and self-exploration is not a ditto mark process. We are to produce not stereotypes, but conscious, intelligent, responsible members of the great society.

While there is increasing evidence of the eagerness of the profession to accept opportunities involving human destiny there is not the needed union that makes for strength. Unfortunately the tendency of public school men and of schools of education is to ignore or disregard the work of the private school. In institutions training the young teachers this is shown by the nature of the courses offered which seldom so

much as admit the existence of the private school. Textbooks used in these courses usually recognize only the needs of the public school. There is trace of snobbishness in the attitude of some public school administrators and teachers in their attitude toward those engaged in the work of the private schools. Young men are warned to remain in public schools lest employment by a private school be considered "professional suicide." In most of the organizations for teachers the private school man has little, if any, part.

Surely the time has come to organize the administrators, supervisors, and teachers of the private school into a national organization affiliated with the National Education Association. With central headquarters, with an accepted national journal, with regularly planned meetings and conferences such an agency could do much to promote the needed togetherness in education. It would surely help the private schools. It would be an aid to the public schools. It would serve the public of parents for which modern education exists.

How would a national organization of private schools help the various preparatory, military, parochial, corrective, and specialized schools of America? First of all it would create a human relationship between the outstanding leaders through the country. It would bring them together in great conventions where they could discuss their problems, compare methods, and really get acquainted. Through regional and state units the whole nation would feel the results of the new good will, sympathy, and understanding. Many of these schools are demonstration laboratories of progressive methods. Through national committees greater experimentation and research could be carried on for many of the problems of private schools have never had such investigation. Not only the large problems of curricula, activity programs, and general administration but also such problems as dormitory discipline, religious education, week-end privileges, etc., could come up for thorough consideration. Higher standards of teaching, better salaries, more modern buildings would result.

Furthermore such an organization could discourage objectionable types of private schools which sometimes bring discredit to all.

Such an organization would greatly interest the public school educator for at last he would become acquainted with the advantages of the private school. He would have a greater appreciation of the difficulties faced by the headmaster. He would learn to respect these men, some of them great pioneers on our educational frontiers. Thus there would grow up the we-feeling among all teachers and principals, whether of public or of private schools. Many private school teachers would find it well to gain experience in the great educational systems made possible by state and county governments. On the other hand a few years in a private school would send a young teacher back to the public school prepared not only to teach, but to give the counseling that is so often lacking.

By having this organization affiliated with the National Education Association there would be a nation-wide spirit of togetherness. Teachers could be more powerful in presenting their plans for future school life in America. Furthermore popular opinion would recognize no schism in the realm of educators. All the children of all the people would be served in a way now impossible. The expression, "united we stand, divided we fall" is as true today as the day it was first uttered.

We cannot cause to topple over the scarecrows that a few may present as objections to this needed organization, for our problems are too titanic to waste time over the bogies and bugaboos of obstructionists. Is it not time to lay the foundation now? Using scattered units that exist now, send-out preliminary inquiries, obtaining the coöperation of the leaders cannot some national committee of the National Education Committee bring about the realization of this plan?

Facing forward we look into years full of potentialities undreamed. The scientist cannot be satisfied with the success of the receding yesterdays. The economic structure of

the years to come will surpass that at which we marvel today. Even in the realm of governments and politics there is reconstruction. What of education? Is it not time not only to say "All for each and each for all" but also to make this ideal effective through national unity and coöperation?

(N. B. Laurence R. Campbell, author of the above appeal, is now on leave from Menlo School and Junior College, Menlo Park, California, where he has taught social science and journalism two years. Before spending these two years in the private school operated in coöperation with Stanford, he taught two years in the junior-senior high school of South San Francisco (public school). He is now a graduate student at Northwestern University.)

Dedication*

First a vision,
Then a plan;
Heart of woman,
Mind of man.

Dig foundations,
Dig them deep,
Rouse the dreaming
Ones from sleep;
Lay them solid
In the earth,
A new building,
Give it birth.

Dig then, dig
The fertile soil,
Dig with faith
Oh men of Toil!

Bring the ore
From out the mine,
Let the white-heat
Fire refine,
Moulten from
The crucible
Pour to shape
That's usable.

Bare and sweaty
Men can feel
Pain in giving
Birth to steel.

Rear the bright
Red girders high,
Reach them up
Toward the sky,
Strength in rope
And iron chain,
Men directing
At the crane.

Pulleys, levers,
Plank and beam;
Machinery
Can human seem,
Made by man,
It could him kill
Unless he move it
By his will.

Red-hot rivets
Hurled along
Bind the building,
Make it strong.

Strong red steel
Against the blue—
Flag of visions
Coming true.

Raise them, raise
Mid noise and steam,
Build with hope
Men of Machine!

Hear the axes'
Clear song ringing,
From the forest
Men are bringing
Fallen trees;
A building make,
Forests bow
For children's sake.

Cut them, cut them,
Breadth and length,
Cut with courage,
Men of Strength!

* Written at the time of the dedication of the new wing of The Scranton Country Day School at Scranton, Pennsylvania.

Come then, craftsman,
Artisan,
Carpenter,
And plaster-man,
Level, plane,
Direct, control,
Give a shape
Unto the whole.

Slowly, in
Perfection laid,
Build with patience,
Men of Trade!

Come then artist,
Thy skill ply,
It with beauty
Glorify;
Whiten column,
Draw, design,
Shape with beauty
Every line.

Mould thy plan
From out thy heart,
Work with love
Oh man of Art!

Mine and earth
And forest gave,
Mind and muscle
Naught did save,
Built for work
And play, and learning,
This building end
By labor—earning.

Men of toil
And of machine,
Men of strength,
Have vision seen,
Men of trade
And men of art,
Everyone
Has given his part.

To pain and patience,
Courage brought,
In faith and hope,
The vision wrought;
And there stands
To crown the whole
Love of little
Children's soul.

Love of parent
For the child,
Love of girlhood,
Boyhood, youth;
Love of happy play
And laughter,
Love of learning,
Love of truth.
Building bodies that are strong,
Building minds more keen and true,
Finding joy, and making song,
Building love:

Love has been the inspiration,
And in love the dedication.

RUTH WILLIAMS,
Scranton, Pennsylvania

Some Educational Implications of Behaviorism

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BEHAVIORISM may be said to be the logical outgrowth of physiological psychology. As the doctrine of the substantive mind lost caste, some of its constituent parts were reincorporated by the physiological psychologists into the new doctrine of parallelism. Parallelism while taking cognizance of the fact that the physical body was essential to the act of thinking, was not able to go the whole way and dispense entirely with mind; and in order to retain mind when it was no longer possible to demonstrate its existence to the satisfaction of modern scientific methods of research, the physiologists resorted to a sort of hocus-pocus to show its reality in a world in which it could not exist. It was difficult for men trained in the old school of psychology to entirely abandon such a wonderful stock-in-trade as mind. Psychology had so long based all its findings upon the old method of introspection that it was almost sacrilege to do away with the tool of introspection.

The true behaviorist would place human beings upon the same basis as any other animate form found in nature. All forms are reduced to the mechanical level. When the behavioristic school have discovered the natural laws that govern phenomena they have found the solution to human behavior. This position appears to be logical. Human beings are played upon by all the forces that govern the rest of the natural order. Human beings can in no wise escape from their environment, and reduced to their chemical constituents, they differ in no wise, in composition, from the rest of the universe. That is to say, that no strange element enters into man's makeup. Man is merely an arrangement of protoplasm, animated to be sure, but not essentially different from a plant, except for the power of locomotion.

The opponents of behaviorism say that this explanation will not suffice, as it fails to explain "purpose" and "meaning" and "insight." The behaviorist blandly comes back and meets this seemingly irrefutable argument by simply stating that the aforementioned items do not exist. They are fictions of the brain. Watson says: " 'Meaning' is a pure abstraction. He (any one) 'means' what he does." This statement appears to be the keystone of behaviorism. Behaviorism starts people out in life about equal. Given a normal individual, that is, one who is born with the requisite number of reflexes to start him on his way and a normal bodily development, there is nothing more for him to do. The environment does the rest. All that one learns from the time of his birth is acquired from his environment and is called "acquired reflexes" or "conditional reflexes." When one has been exposed to the same environment long enough, he becomes habituated, and from then on will always respond to the same stimulus in the same manner. He is then freed to respond to other stimuli. Each stimulus builds up the conditions for new kinds of responses, and the environment takes on new meaning as responses are increased in number. Environment consists of patterns which take on meaning as they are received as stimuli. All learning consists in the reactions that are built up to the many stimuli that are present in the environment. Old responses are overlaid with new ones; old and new combine into many, in fact, infinite patterns. The learned man is the one who has built up the most varied and complicated responses and is thus able to take advantage of a rich and varied environment.

If we grant that the foregoing assumptions are true, there are contained in them some wonderful educational implications; and the process of educating becomes wonderfully simple in outline. Under this theory of learning all people have an equal start in life except the defectives. The difference in educational status of the ignoramus and the sage is only a difference in distance traveled, and not the result of a

widely different natural endowment. There need be no hopelessly dull individuals. Ignorance can be completely stamped out. It only becomes necessary to take the infant at birth and by a pre-determined plan for his career, subject him to the kind of environment that has been found to produce the kind of individual desired, and he will grow to this pattern without fail. In fact, he could not avoid it. Try as he might, he could not, according to this theory, escape from his conditioning.

This theory gives hope to all. It really presents a democratic outlook upon education. If the environment could be controlled satisfactorily we should be able to produce a type of citizen who would act in an altogether orthodox manner at all times, and would not deviate from the path that society had predetermined for him. Man is helpless before his environment. Man is unthinking. Watson says, "Thinking is largely a verbal process." There is no insight. The very words we use have no meaning and only represent a present action and in no wise govern our future actions. There is no foresight, for an act has only present significance. All that is needed to make the world happy is to get this present environment controlled. There need be no thought for the future, for the environment of the future will have to govern that period when it arrives. Man will be just a jolly animal living without worry and care.

There are, however, some rifts in the lute. Thorndike concedes that men "are creatures of circumstances," but he ruins the picture by saying, "The environmental stimulus adequate to arouse a certain power or ideal or habit in one man may be hopelessly inadequate to do so in another." This statement, if true, completely demolishes the educational value of behaviorism. We cannot then build up the kind of environment we desire and expect it to be uniformly successful in developing the kind of human being desired. It is the old case of one man's meat being another man's poison. We have no assurance, whatever we do, that we are doing the right thing. We

become the creatures of circumstance indeed, and right or wrong development is a matter of pure chance. Our schooling is done blindly. We have no need for plans. Indeed plans may be harmful. We must stumble along, hoping for the best but expecting any thing. There is small consolation in a doctrine of this kind, and yet there is so much obvious truth in it. Thorndike introduces one saving factor, which is that "each man in part selects his own environment," but this may only mean that in his ignorance he selects what is not good for him.

The most sordid feature of behaviorism is the fact that it denies "purpose." If there is no purpose, what shall we plan for our education? It would seem logical under such a theory to abandon all our efforts and let each man look out for himself. It is at this point that behaviorists seem, in their educational program, to become a bit illogical. They view the whole process of life as devoid of meaning and refuse to recognize such a thing as insight and deny purpose, and yet, when they come to advocate an educational program they do not follow their beliefs to a logical conclusion. Educationally the behaviorists differ but little for the Herbartians. The child is viewed as so much raw material to be shaped by an environment that is carefully selected for him. Why should the behaviorists be so careful about the selection of an environment if there is no purpose? Certainly it is not to strengthen the native reflexes, as these would take care of themselves. It is to mould the young to some definite pattern that the behaviorist selects the environment best suited to meet the child's needs in life, and if this does not constitute purpose, then the author does not understand the meaning of that word or has grossly misinterpreted the tenets of behaviorism.

Behaviorism would make life consist of a continuous series of reflexes, following one another and apparently not in the least tied together, except by sequence. This condition is somewhat modified if one introduces the Thorndike "conduction unit." Thorndike would start the reflexes necessary to

the consummation of an object off at the same time. There could be any number of elements in a situation. These reflexes are "set" to do a certain thing and when this is accomplished it results in "satisfaction," and failure to accomplish results in "annoyance." Satisfactions have a tendency to establish themselves in the neural machinery, while annoyances are sloughed off. When the conduction unit is ready to conduct it must do so in order to register satisfaction; just how the reflexes arrange themselves in the proper manner to get satisfaction and how they know it is satisfaction they are going after is not so easily explained. There must be some guiding principle about this assemblying of elements in the conduction unit or satisfaction would result only accidentally or infrequently. It is not altogether clear just where the satisfiers and annoyers are located, in the organism or in the environment, and it is difficult to see just how they affect human behavior. Thorndike contends that these conduction units modify each other and so build up a form of behavior, but under his explanation it would be altogether possible for the responses to be working in opposition to each other, and so, when it comes to applying his theory to education, we get into the problem of building up situations that are going to set off the responses that will result in satisfaction to all concerned, which we may take to mean the individual and society.

It would appear that Thorndike has made education impossible. While he has tried to reduce education to such mechanical terms that we could experiment on animals until we had gotten all the necessary data and then apply the findings to human beings, who, in his estimation, function mentally in the same manner, he leaves us in the position of not knowing how to control anything except by pure chance. Until the conduction unit is explained so thoroughly that there is no probability of its starting to run upstream at any time, it is not safe to adopt it as an educational factor.

The Foundation of Science Teaching

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WHATEVER might have been said relative to the neglect of science teaching in former times cannot be uttered at present. So universal has it become that there is scarcely a junior or senior high school in the country that does not have one or more science courses in its curriculum. In view of the fact that we are living in an age where the accomplishments of science are seen on every hand, it is only natural that science should enter into the schools and claim its proper place in education as a civilizing agent. Science may point with pride to what it has done, and exclaim that the future holds undreamed of advances over the present.

But in spite of the fact that science has so universally invaded the secondary schools and colleges, there is a great deal of misunderstanding as to just what is meant by it, and its aims and objectives. Perhaps a scrutiny of the definition of science may help to solve the difficulty. The shortest definition is that "science is precise, coördinated, organized knowledge." In a somewhat developed form then, science is an organized knowledge of material, concrete, objective facts or phenomena that can be studied by recognized methods of measurements, registration, and experimentation. The term "organized" is the essence of the definition, inasmuch as it connotes or implies that certain objective relations exist between facts or phenomena and the mind. Here is where science differs from mere knowledge by being knowledge both of facts and their relations to each other. The mere, random, haphazard accumulation of facts is not science, but the perception and conception of their natural relations to each other; the comprehension of these relations under gen-

eral laws, and the organization of facts and laws into one body, the parts of which are seen to be subservient to each other, is science. Physical and biological science then becomes all systematized, verifiable, and communicable knowledge reached by reflection on the impersonal data of observation.

Returning to the other factor of the definition: "knowledge." There are two kinds of knowledge,—that which we know through our experience, and that which we know through the experience of others. The precise, coördinated knowledge of science should be the outcome of the learner's own observation of facts through the exercise of his own senses, and his own reflection on what he has observed. The true foundation of science lies in the knowledge of facts gained by first-hand observation and experimentation made by the learner himself, and organized by the operation of his own mind upon them. Science is not memorizing or thinking the thoughts of others, but building up a body of knowledge from observed phenomena.

With a hastily and superficially educated democracy, and a student body anxious to secure as quickly as possible just enough facts to pass an examination, a great deal of science teaching has reverted to little else than the memorization of textual material. It is very possible for a student to cram a number of text books on scientific subjects, to be drenched with endless explanations and comments on descriptions of experiments performed by others, to lodge in his memory the technical results of investigations in which he has taken no part himself, together with formulae, rules, and definitions *ad infinitum*, and yet after all, never to have even caught a glimpse of the idea involved in investigation, or to have been for a moment animated by the spirit of scientific exploration. The true science student should attack each problem as though it had never been investigated or solved before.

The goal of science teaching should be to bring the students into direct contact with facts,—to inspire them to in-

vestigate, discover, and invent for themselves. Only by this method will science teaching yield its most eminent results. In physics, a class should not be told that a magnet attracts iron, or that pressure applied to a confined liquid is transmitted undiminished in all directions, but each student should actually perform the experiment. In chemistry and biology, and in all the sciences this principle is equally true. If the practice of individual investigation is carried on carefully and conscientiously, a teacher may be sure that however scanty may be the measure of information poured into the student's mind, there has been created an intellectual habit of priceless value in practical life. The great benefit of science teaching—that in virtue of which it cannot be replaced by any other discipline whatever, is just this bringing of the mind directly into contact with facts,—that is to say, in drawing conclusions from particular facts made known by immediate observations of nature. This training in an out and out intellectual integrity, with uncompromising honesty at every step should be the first and foremost objective in science teaching.

There are those who suggest that the acquisition of useful knowledge should be the goal. However important may be this body of accumulated knowledge, it is entirely secondary. It is of more fundamental value to teach the young mind to seek out one original problem, to draw one correct conclusion, than to have them acquire the entire contents of a textbook. This mental training will so modify the mind as to be of lifelong service, in safeguarding the intelligent interpretation of contemporary life. A very narrow view is taken of education if it is intended only to shorten the individual's recapitulation of racial history by enabling him to utilize the enregistered wisdom of the ages. It must do something for the individual's mind. Unless it does, it is valueless. Education, fundamentally, is mental discipline and science is its best agent.

In experimental science the method of teaching becomes

of paramount importance. The motto of every classroom might well be: "To face the great problems of nature as though they have never been solved before," and the teacher's objective: to bring each pupil face to face with these problems as though he were the first discoverer. Only by this method can scientific habits of thought be developed. A short time ago I knew of a biology department in a prominent eastern college which had only two laboratory periods of forty-five minutes each during the year. All information was secured from textbooks and lecture notes. Each student at the end of the year could glibly recite from memory the various stages of mitosis, spermatogenesis, and oogenesis and reproduce the graphic illustrations of these processes as shown in the textbook, "because these questions were likely to be asked on the examination" made out by the head of the department. These same students could not distinguish an oak tree from an elm, an exogenous from an endogenous stem, and they had never seen any of the microscopic forms of life,—only drawings, yet they had passed the course in required freshman biology.

If scientific education is to be dealt with as mere book work, it would be better not to attempt it, but to stick to Latin Grammar, which makes no pretense to be anything more than book work. In science, students must see and know the things about which they are studying, for only in this way will there be evoked those qualities of mind which should be developed from science,—those results which are worthy of the high dignity of the subject. One cannot deny for a moment that much is to be gained from the study of scientific textbooks. It would be absurd to do so. What is to be denied is that the reading of science books which is strictly a literary study, cannot be conceived as constituting real science teaching. To receive facts in science on any other authority than that of the facts themselves; to study observations, experiments, and comments of others, instead of observing, experimenting, and commenting ourselves; to

learn rules, definitions, abstract propositions, technicalities, before personally dealing with the facts which lead up to them; all this, whether in literary or scientific education, and especially in the latter, is of the essence of cramming, and is therefore entirely opposed to, and destructive of, true mental training and discipline.

It is not difficult at all to understand why there is so much slipshod science teaching. Teachers are teaching from books simply because they are afraid of the examinations. Science examinations are almost entirely composed of fact questions, answerable from book learning exclusively. Consequently, teachers are solicitous to fill their students with information gained by rote memory, for they well know that their teaching ability will be judged by the percent of students they "get through" the examinations. In other words, too frequently our school authorities use the examinations to examine both the students and the teacher as well. And just as long as such a vicious system prevails, cramming of facts will continue. As things stand, the science departments of our schools are the most powerful promoters of cramming and mechanical drilling the world ever knew. The method of investigation, which is the very foundation of science teaching, and which constitutes its glory, is set aside and treated as worthless. By aiming for quantity of results without regard to quality, in the end, neither quantity or quality is secured. It cannot be too frequently repeated that development and training, and not the acquisition of knowledge, however valuable in itself, can ever be the true and proper objective for science teaching.

Social Status of Teachers in Norway

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THE social status of teachers is a far greater educational factor than commonly admitted. Yet this factor plays a great and definite rôle in the education of the youth. No matter how highly a teacher is educated, if he does not stand high in the social esteem of his peers, or in the esteem of his countrymen generally, the value of the personal equation of his service will be greatly diminished. Again, what political freedom is to the educated and intelligent citizenry, so is social standing and security in tenure to the teachers. On this point Norway's system of education offers perhaps its greatest object lesson.[1]

The secondary school teachers of Norway receive their education at the Royal University of Oslo. This institution has a very high standard and is typical of a high class continental university having five faculties or colleges: Law, Medicine, Theology, Science, and Liberal Arts. The latter is usually referred to as the faculty of Philosophy. All teachers in the secondary schools, except the teachers of religion, are trained in the faculty of Science or of Liberal Arts. The teachers of religion are of course trained in the faculty of Theology.

The time needed to complete any one of these faculties varies greatly with the individual student. The average time, however, is five years for Theology, seven years for Medicine, five years for Law, and seven years each for the faculties of Science and Liberal Arts; but many have to attend eight or nine years before they pass their final exami-

1 For a more detailed discussion of this subject cf. writer's contribution: Secondary Education in Norway, 1930 Bulletin, Department of the Interior, Office of Education, Washington, D. C.

nations. Upon passing this final or *Embedseksamen* (professional), they all receive the degree or title: *Kandidat.* That means that they are official candidates for appointment in the various professions, according to the field of their training, as lawyers, physicians, ministers, and teachers or professors. The candidates from the faculty of Science are termed Cand. Real, and those from the faculty of Liberal Arts, Cand. Filol. If they have chosen teaching as their profession they receive the additional designation of *Lektor* which entitles them to appointment in the secondary schools after they have taken a semester of theoretical and practical training in pedagogy at the Pedagogical Seminary under the Minister of Education.

No one can enter the University of Norway before he has finished his *Eksamen Artium* which is equivalent or better to completing junior college in America, normal age of pupils being twenty years.[2] The candidate at the end of his university training will thus be at least twenty-seven years of age, having spent normally twenty years in school. His school career has been very strenuous, especially the six years of secondary education. During the middle school all pupils take the same program of study and the same examination at the close of the year. But in the gymnasium there are usually three lines offered: the *real* or scientific, the language-history, and the language-history with Latin, also called the Latin line. In some schools a Greek line is also offered. The *real* line stresses mathematics and the natural sciences, while the language-history line has modern languages for its main field, and the third makes the classics its major study. In each line the same number of recitation periods prevails, and theoretically at least the same amount of work is required both in school and for home study. Each pupil carries six recitations a day of forty-five minutes each, six school days a week, and thus he has thirty-six recitations a

2 Secondary education in Norway is six years. The first three years is Middle School, ages of pupils 14-17 years. The second three years is the Gymnasium, ages of pupils 17-20 years. Primary education is from seven till fourteen and must be completed before the pupil enters the Middle School.

week—and all but five or six require home preparation. No study periods are provided for at school. This very strenuous program required of every pupil in the Norwegian secondary schools would, no doubt, baffle two thirds of the pupils in the American high schools.

University or higher education is uncontrolled, that is the students take their own time in completing their courses. The control of results is only by annual examinations. Thus the time needed for completing a university education in Norway varies with the ability of the students as previously stated.

The preparation of the Norwegian teacher is, as we see, very thorough and broad, and opens for him a large field of usefulness and of service. After he has served his probationary term of two years, his tenure becomes fixed till he has reached his age limit of seventy years when he retires on a living pension.

By virtue of his position or calling the Norwegian teacher is an official of the state and of the community, and his salary and rank place him on social vantage ground. A rektor or principal of a gymnasium may reach a maximum salary of 12,000 kroner[3] beginning with a minimum salary of 10,000 kroner in the class A group. A class B rektor receives a minimum salary of 9,000 kroner and a maximum of 11,000 kroner. This compares very favorably with the salary of a university professor whose minimum is 10,000 kroner and maximum 13,000 kroner, or with the salary of a justice of the supreme court which is 12,000 kroner annually. Again if we compare the rektor's salary with that of a member of the legal profession, many of whom are employed by the state, the school men are paid about as well. A state attorney f.ex. receives in salary and fees about 12,000 kroner. In the department of police administration the highest administrative official of a *fylke* or county, receives a salary of from 13,500 to 15,000 kroner.

3 Salary scale for 1925. A krone at par is about 27 cents in U. S. money, but reaches much farther in most business transactions or in purchasing power.

Many of the physicians are also state officials. A medical superintendent receives a minimum salary of 5,000 kroner in small districts to 14,000 kroner in large districts. A fylke or county physician receives from 11,000 to 13,000 kroner.

When we compare the salaries of school principals and teachers with those of officers of the army and the navy, the salaries of school men appear at even greater advantage. A major general receives a maximum salary of 11,000 kroner, a colonel 8,500, a major 8,000, and a captain 7,500 kroner maximum.

We have already pointed out that lektor is the degree or title of the secondary school teacher in Norway. He, like the rektor, is a state or communal official. The lektor's initial salary is 5,000 kroner with six increases of 500 kroner each, making a maximum of 8,000 kroner, which is the same salary as received by a minister in the state church of Norway, and nearly the same as that of an assistant inspector in the department of police administration, who receives from 7,500 to 9,000 kroner. The lektor's salary is as good, or better, as that of a hospital physician who receives from 6,000 to 7,500 kroner, and nearly as good as that of a colonel in the regular army, who receives a maximum salary of 8,500 kroner, as stated above.

With the exception of the King, the Prime Minister and the diplomatic heads at the foreign capitals, the highest salary paid to state or communal officials is 15,000 kroner or about $4,000 in U. S. money[4] and there are not many who reach that amount.

The difference in salary between rektor and lektor is not so great when we remember that the rektor is also his own superintendent. The administration of the secondary schools is entirely separate from the primary and has no superintendent of schools.

The main administrative factor of the secondary schools of Norway is the State Board for Secondary Education,

4 These data on salaries are compiled from "Norges Statskalender," the official State Directory for 1924.

which is composed of seven professional educators appointed by the King and confirmed by the ministry, for a term of five years. They are men of experience as teachers and of practical insight in matters of secondary education, and include active teachers and leaders. This professional council prepares a common curriculum for all secondary schools and prepares and supervises all the annual examinations, for both middle school and gymnasium. This council also exercises supervision in the selection of textbooks.

But the direct supervision of any secondary school is in the local board for each school, which is composed of five members: the rektor of the school, one member appointed or authorized by the ministry for a period of four years, and three members elected by the communal or city council. This local board attends to the school property and the finance and business affairs of the school generally, and it recommends teachers for appointment.

The internal management of the school is done by the Faculty Council composed of the rektor as chairman and all the permanent teachers. In this way no superintendent is needed.

Having thus considered the preparation and character of service of the Norwegian secondary school teacher, we shall now note some of the outstanding features of his social status.

His long and very careful preparation and the high grade of service that he renders and the consequent recognition of a commensurable remuneration place him on equality with members of other groups of higher state officials. This is quite in keeping with the Norwegian philosophy of education. In that philosophy the teacher is not merely an employee hired by a school board to perform a certain work by the month or by the year, but he is also a state or communal official who by reason of superior training, education and experience, sustains a peculiar relationship to both community and state. By reason of this high regard and relationship, the Norwegian teacher functions effectively in many ways outside his classroom duties. He may be a member

on various town or county boards including the school board. In fact every school board in Norway must have at least one of the active teachers as a regular member in order to be legally constituted. He may also engage in politics and even be elected to the Storting (parliament). In that event a substitute will fill his place in school. At home he is as one of the civic fathers of the community and enjoys high respect and consideration. Of course special talent and natural ability count much here too and many of them do not attempt very much outside their school duties. But having perfect social freedom as well as freedom of speech and a life tenure, the Norwegian teacher very naturally functions far more effectively in the civic, social and religious affairs of his community and state than where he is without such freedom and recognition. For the Norwegian philosophy of education does not view education as an industrial concern or as a factory where a superintendent hires his skilled workman to convert the raw material received into ready-made goods and as far as possible into uniform products. A teacher in Norway has to be more than a skilled and efficient workman or a trained pedagog. He must strive to lead not only in his special art or science, but he must be able to sense the deeper human interest of the children in their relationship to home, community, church and state,—and to work for adjustment in the whole social order.

By reason of these facts and the great trust and confidence placed in the teachers, they have as a group furnished a greater number of leaders and distinguished men and women in practically all walks of life than any other group in Norway. Many of the lawmakers and ministers of state have had their beginnings as teachers; many of the bishops and other leaders of the church started as pedagogues. Teachers' participation in school administration has had a most salutary effect on the educational system of Norway and also on the government. The result is that instead of the government guiding the progress of education—the educational progress is guiding the government.

Geography in the Teachers College

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THE old conception of an education was to have people master facts and knowledge, for their own sake; the new conception, if properly understood and carried out, emphasizes the mastering of facts and knowledge as a means to a greater end. Dr. Whitehead, Harvard University, well states the newer idea of an education with this definition—"Education is the art of the utilization of knowledge." There should be no lessening of the task of learning facts and knowledge but that all these should be used in making the individual better able to adjust himself to the environment in which he may be located. So it is the utilization of knowledge, on the part of the individual, which actually counts.

Our next proposition is the choosing of that knowledge, which when utilized, makes it easiest for the individual to adjust himself. We are now leaning very heavily upon the seven cardinal objectives, which are listed in Bulletin No. 35, U. S. Bureau of Education, for 1918. These objectives may be stated as: (1) health, (2) ethical training, (3) leisure time, (4) worthy home membership, (5) citizenship, (6) vocational training, and (7) the fundamental processes. When these objectives are properly understood and applied to the entire educational system, we are able to see that they lend themselves greatly to the newer conception of education—the utilization of knowledge.

We are here more concerned with the workings of a modern Teachers College. A good statement of what the service of a Teachers College should be, was expressed by the late

President David Felmley, Illinois State Normal University, Normal, Illinois, in the 1922 Proceedings of the National Education Association. The plan is two-fold in nature and was expressed in the form of a sentence. "Mr. Smith teaches John, Geometry." Here we see Mr. Smith (the subject) represents the teacher, while the verb teaches represents the performance, or action of the teacher. In this sentence there are two objects for the verb, teaches. One is given as John, representing boys and girls, or men and women, and the other is Geometry, representing the many forms of subject-matter. So we see that the real teacher should teach both *boys and girls* and *subject-matter*. In essence, this means that a Teachers College should emphasize Psychology, Pedagogy, and content courses.

The writer here wishes to turn to the subject of Geography. Geography may be defined, according to Huntington and Cushing, as the "study of geographical environment and its relation to human activities."

It appears to the writer that Geography should be interpreted as a basic subject for all courses dealing with human activities—history, economics, sociology, political science, as well as many of the physical sciences. Geography may properly be referred to as a social science, but it also a necessary prerequisite for a careful study of any of the social as well as physical sciences.

To the writer, Geography, as well as the other social sciences has three outstanding values. These values may be stated as: 1 (disciplinary), 2 (cultural and 3 (utility). For instance, we should be interested in having people learn pertinent facts, in a definite form, in all of the social sciences. No one is able to reason or think before he has the material about which he is to reason or think. There has been too much of a movement, according to this writer, in the direction of superficial training in fundamental facts. Possibly memorizing is one of the lower and easier activities of the mind but the writer feels that the memorizing of worthwhile

facts should serve as a prerequisite for any higher activities of the mind.

The cultural value also has much worth. The informed individual is the one who is able to read meaning into a multiplicity of situations. The average person, recognizing that there is no such individual, is not able to read real meanings into what may appear in a magazine article, the newspapers, the stage, and the conversation. Let the writer depart for a moment to give an example of what he means. When the writer was in the eighth grade he saw a playlet entitled "All of a Sudden Zanthippe." The play presented a most humorous bit of entertainment. Most all people present seemed to enjoy it very much. Later in the university the writer read, in detail, the life of the great Greek philosopher "Socrates." In reading of his life it was learned that he was a married man and that his wife's name was Zanthippe. Learning that the domestic conditions for Socrates were none too favorable, the real underlying appreciation of the title and playlet began to come into view. Socrates was a hen-pecked man and the playlet had brought this out in a most humorous manner. No wonder Socrates spent so much of his time with the boys and girls in the streets of Athens. How many received the deeper meaning of the playlet that the writer had seen?

Now let us turn to the utility value. This is the value that the business world is requiring more of from the schools, at present. We need facts first; these facts must be meaningful to us; and then we must be able to utilize these facts and meanings. Geography may well serve us here. When we know the geographical environment in which a group of people live, we are interested in placing meanings into their activities—their government, religion, customs, manners, and institutions. We begin to see why they have the type of government, religion, customs, etc., that they have. After this we become interested in the relations of one group with other groups. What attitudes do these people, of a given

region, have toward other people of different geographical conditions? What is the significance of this? This, according to J. Russell Smith, Columbia University, is the only way that we can develop tolerance, sympathy, and respect,—which will lead to wholesome world relations. There is too much hatred and jealousy in the hearts of people. This is all due to a lack of the understanding of people through knowledge and information. There is too much of a narrow conception on the part of many people. There are too many one hundred percent narrow-minded Americans, as well as Frenchmen, Englishmen, etc. Never in the history of the world has there been a greater need for a training in international interdependence. We are not, now, living on a small homestead, as our grandfathers did, producing and consuming all by our own hands. We are now dependent upon nearly all parts of the world. To stop to think of our different types of food, clothing, shelter, and our many comforts and luxuries, will tell us this. What do we need to do about it? We need to inform people, get them to thinking and reasoning, and a greater relationship will naturally evolve.

We cannot bring about World Peace by outlawing war—we must appeal to people to people from *within*, rather than from without. The most effective minister, in many sections of our country, is not the one who dwells upon hell and damnation (a pressure from *without*) but the one who has an appeal to thinking people, and one who can get people to thinking so that they will be able to do for themselves. The only way to be safe with the proposition is to have it wholeheartedly sold to the people. How many people actually believe that the world is round? Ask many people to point toward Alaska and see what they do. How many people believe that the sun rises in the east and sets in the west? How many think that the U. S. is located north of Europe? How many know why most vacations are arranged with employees for July and August? How many know whether to put their watch forward or backward when they

are traveling eastward? How many in Akron are puzzled by getting baseball results from Washington, D. C. before they learn of a game played in Cleveland, at the same time? How many know where their food comes from? We must spend more time in getting people to be well informed; then help them to get meanings, and finally aid them in utilizing those facts and meanings in meeting life situations.

Geography, properly taught, would lead to an overcoming of much of the class, national, and race prejudice which now prevails. We should do away with such expressions as "wop," "kike," "greaser," etc., and emphasize our dependence upon all people and their dependence upon us.

The writer should like to close by saying that we are now in a period of specialization, a time when people should be well prepared for the thing that they undertake as their work. The college instructor should be no exception to this rule. He should be well grounded with the facts, meanings, and philosophy of his work. When the other many problems can be solved, all work should be organized into departments, and each department should be located in the proper college of the university. All work that logically belongs to one department should be placed there, and in charge of specialists. We should get away from the situation of "jack of all trades, but master of none."

It is hoped that these few remarks will be of assistance in getting people to think of the purpose and service of a Teachers College, and will also show how Geography naturally becomes an important phase of its program.

The New Need of An Auxiliary Language

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"THE war is only an episode, communication marks an epoch," said Professor G. F. Nicolai in his "Biology of War," which is one of the most important books on the philosophy of war ever written.

Communication began when man, "the symbol-making animal" as Aristotle called him, developed language and made a sound a universal. After unknown ages, came hieroglyphics; then the alphabet; and finally Gutenberg "made thought cosmopolite." Today the telephone and radio are annihilating space and time, and the American Radio Relay League is considering an international language as becoming a necessity for all world business. Some time ago they began taking steps for the approval of their plans for utilizing Esperanto, or Ido, as a means of communication.

Henry Ford once said: "Difference in language indicates difference in thought, in ambition and method. Difference in language hinders science and invention and commerce just as it hinders world peace and understanding. Language leaves its mark on everything and you can readily see it in government and mechanics. There are some languages in which you cannot build a machine at all. . . . There are some languages in which you cannot successfully run a factory."

If the peoples of the world are to live in friendly coöperation, it is imperative that they should understand each other. Photographs and cinemas may help visualize certain phases of each other's lives, but we need something more, for films in the Orient have often presented the worst and most licentious features of American life, outlawed here and belying

us abroad. The profiteer in films has poisoned the minds of millions of Asiatics and laid the foundation for contempt and emotions akin to hate.

Hundreds of millions of Orientals with minds as keen as ours are shut off by illiteracy in their own language from understanding even their own people, for lack of an alphabetical system. Not one in thousands of them will ever learn a European language and come into touch with world's thought through that. Unless there be some extremely simple, easy means of communication devised, one which is international in all its connotations and will create no prejudice, there seems no possibility of that real understanding which undermines the menace of war. The fatuous hope of many English-speaking people that English will sometime become the language of general communication ignores the difficulties of teaching people from Thibet to Timbuctoo that *bough* and *cough* and *through* and a thousand other irregularities and idioms in our language make English practically prohibitive. A language that cannot be learned in one-fifth the time that English requires when taught in a foreign country, will not serve for a general means of communication. It will be scores of years before our people will consent to a phonetic spelling, judging by the very slow advance thus far made. It is probable that our children will wrestle with the absurdities of our language for many generations to come and that our great literature spelled in the present fashion will prove a great stumbling block to any changes in the language beyond the admission of some new words. Any attempt on our part to urge the adoption of our own tongue would arouse the suspicion that this might tend to a British-Anglican alliance for the extension of political influence.

A Danish or Portuguese discoverer or inventor wants to get into immediate touch with the mind of Petrograd, Vienna, Rome, Melbourne, Tokio, Buenos Ayres and New York. It is costly to translate books even into a dozen different

languages; yet he must reach the users of 150 different languages and dialects if his product of genius shall benefit the world. No living language is simple and regular enough and without idioms to be adopted as the international language to supplement native speech. Such a language should be phonetic, should contain only the sounds common to all European languages omitting the French *u*, the German gutturals, the English *th* and other sounds difficult for foreigners. The whole question of pronunciation and spelling can be mastered by a high school child in fifteen minutes, instead of needing more or less attention for ten years. Most busy breadwinners, even when laborers have a five-day week, will have neither time nor ability to learn more than one other language besides their own. Those who choose to learn ancient and other modern languages will of course continue to do so.

All the little nations like Holland and Albania and Greece, which so jealously guard their own historic tongues and which must teach their children several alien languages if they would be educated, would feel immediate relief if in one-quarter of the time needed to acquire one European language they could come into touch with all the world. Modern business is more and more going to require clerks and accountants and agents who can send letters without requiring translation to every corner of the globe. By 1950 we shall realize this acutely. Repugnance which thoughtless people have for an auxiliary language because it is "artificial" is like that of a sentimentalist who objects to railroads because their tracks are not as beautiful as meandering woodpaths. Most accessories and instruments in modern life are as artificial as shoes and stoves and pen and ink. The only question is, are they beneficent and efficient? Does Esperanto or Ido or some improvement on them promise to save hundreds of millions of people a year's time? Does it in actual practice help to break down that nationalist prejudice which the World War has often accentuated?

Just what form the new auxiliary should take only impartial linguistic experts can decide. It should be based on European roots, preferably on Latin roots, familiar to all persons of culture, and which will aid the pupil who wishes to go further and study Latin and its derivative languages. An able Italian scholar, a professor in Turin has recently developed in impressive detail important results of this simplification in roots and its great additional service to the beginner in classical studies. When psychological experiments have developed the absolutely easiest form of language, the shortest cut in conveying information, the public must be educated as to the scientific and political and missionary value of the spread of the new invention which ought eventually to be as beneficent and necessary as the telephone. A generous donation from some of our multi-millionaires would enormously facilitate the initial steps in experiment in standardization, in printing pamphlets for practically free circulation and for giving instruction in all the normal schools of the world. Let this continue a few years and the movement would become self-supporting; and a century hence the primitive peoples who have been taught this language would begin to slough off their own unprinted dialects which separate one tribe from another. They would begin to become citizens of the world.

An auxiliary language, like any living language, can grow. Esperanto is already spoken by hundreds of thousands of persons and was recommended years ago by the French *savants* after many sittings of the Collège de France as the most desirable if it had certain modifications. These might have to be quite extensive, but there should be no delay in making the necessary studies. When once agreed upon, the normal classes should be authorized by governments and preferably sponsored by the League of Nations, thus preparing for the general instruction in secondary schools as the first new language to be studied, making all others easier. World travelers, bankers, librarians, business clerks and

others would in one school generation acquire facility and would be the persons who would control the avenues of influence which govern policies and legislation. That spirit of cosmopolitanism which prevailed in the days of Kant and Goethe, spite of much narrowness, would return and would enlarge the scope of patriotism from nation to humanity. A commonly-used auxiliary language would profoundly aid the sense of human solidarity. It would lead to a common coinage and common standards of weights and measures.

Every child should be encouraged to look forward to this language as twenty years ago we looked forward to the development of aviation. Educational authorities throughout the world should work in close coöperation with commercial, technical, scientific and political groups to secure serious study of the auxiliary language and should acquaint themselves with the status of the work and what has been done thus far. Physical science and material development have done much to acquaint us with the antipodes; but they have not gone far to develop a sense of sympathy and a sense of unity. The world needs something more than mechanical devices. It needs a different international philosophy, a different point of view. Before a generation passes radio messages from London to New York should be understood by high school students in twenty different countries. Enormous sums are being given almost daily for educational work along the old conventional lines, but why does not some millionaire have the vision of how much more might be done in other ways than in supplying magnificent buildings and material equipment for them? The crying need for an auxiliary language presents a commanding opportunity and an open door.

American Notes—Editorial

In his annual report, Dr. Samuel S. Drury, rector of St. Paul School, declared that too many boys are going to college. "Not over 75 per cent of each graduating class here, for example," he said, "can show either the intellectual fibre or the vocational urge to justify higher learning. Onward they go, but not upward, often merely to satisfy that parental pride which in turn is engendered by fear of relatives and neighbors. They spend hundreds of dollars on these bewildered boys, stumbling along what ought to be a widening path of usefulness, but what often proves a morass of disappointments and dissipation. When some one is brave enough to found a society for the prevention of going to college," he declared, "its membership will be snapped up by the schoolmaster who knows youth best and who values it most sympathetically."

The deplorable fact, however, is not that too many boys go to college, it is rather that too many go to the wrong kind of college to fit their specific needs and talents. If a boy, at the end of his high school term, has neither intellectual fibre nor vocational urge to justify college, chances are that he will never be fit for college and it was a mistake to send him even to high school. But that class is small enough to be insignificant and may be disregarded with the remark that every social arrangement has its inherent flaw and we cannot expect college to be an exception to this. With all due respect to Dr. Drury, I claim what we need most of all is a society for the prevention of going to the wrong kind of college. The question uppermost in the boy's mind should not be "college?" but *"which* college?" and it should be the duty of the secondary school not only to prepare the student for higher learning, but also guide him in a choice of a branch of higher learning. The average boy chooses his college because of its tradition, proximity, because his dad went there, and other comparatively insignificant and unworthy reasons. And because of this there are lawyers that were born engineers, doctors that would have been doubly successful as business men, teachers and journalists who in their natural field would have shone in contrast with their present lack of success and efficacy. And all this could to a great extent be avoided if the high school authorities would actively coöperate with the college entrance committees. They also should be given the power of preventing a boy from ruining his career, by not permitting him to make an unwise choice. Certainly the schoolmasters who, according to Dr. Drury. know youth best and value it

most sympathetically, are more able to act as agents for both college and boy than is a group of men who only know the applicant's recorded conduct, spirit and scholastic standing. In all there are 604 colleges and universities in the United States. These all can be classed in five major kinds. There are the great technical schools, like the Massachusetts Institute of Technology, or the Armour Institute of Chicago, or the Worcester Polytechnic Institute. There are the famous old colleges like Harvard and Yale and Princeton. There are the small colleges, scattered from coast to coast. There are the new "Coöperative Colleges," that combine shop-work and study in alternating periods, like the College of Engineering and Commerce of the University of Cincinnati, or Antioch. And finally, there are the State universities, often the largest of all, like the University of Wisconsin, the University of North Carolina, and the University of Illinois. If every boy could first select the class that would give him most what he wants, and then in that class pick out the particular college best suited for him, the amount of misery in the world would be definitely reduced. In most cases, however, it is as impossible for the boy to pick the right college as it is for the college to pick the right boy. For whom then but the high school remains this great task?—Contributed by Theodore C. Kahn, 1842 Commonwealth Ave., Boston, Mass.

The National Advisory Committee on Illiteracy, Interior Department, Washington, D. C., says that Delaware, first state in the Union to have its illiteracy figures announced by the Federal Census Bureau, shows a decrease of almost 33⅓ per cent in illiteracy over the figures for 1920. The census for this year, announces the bureau, indicates that there are 7,805 illiterates, the majority of these being in Wilmington. There are 1,896 native white illiterates, 2,392 foreign-born, and 3,496 negroes. It is pointed out by the National Advisory Committee on Illiteracy, of which the Honorable Ray Lyman Wilbur, Secretary of the Interior, is chairman, that if all of the states made a showing equal with Delaware, it would mean that over a million and a half of the five million illiterates in the United States have been taught to read and write, and that illiteracy in this country has been reduced from 6% to about 4%. While Delaware has not made a vigorous campaign among the illiterates, it has conducted excellent night classes during the past few years, in both rural and urban centers. It is believed by the National Advisory Committee on Illiteracy that the states which conducted vigorous campaigns will show even a higher percentage of reduction. If such should be the case,

illiteracy in the United States will be cut more than one-third. Using Delaware as an index, illiteracy the country over is 33⅓ per cent less than it was ten years ago. This means that the campaigns under way are effective, and that the blot of illiteracy can be removed by a brief but widespread effort which will reach every part of the country.

STUDIES IN CHARACTER EDUCATION. By Frank Astor, Ph.D., Metropolitan Director, The Knighthood of Youth.

In all three of the volumes reporting the work of the Character Education Enquiry, there are interesting findings. I have made a collection of these, in a sort of curiosity shops, which follows:

What children are learning of self-control, service and honesty seems to be largely a matter of accident. There is little evidence that they are being influenced by effectively organized moral education.

"When dishonesty is rewarded, dishonesty is practiced."

"Mere verbal promises to be honest and verbal formulations of the ideal of honesty do not produce general honest habits."

In most cases, the motives of deception are probably mixed, but the most common single cause is the desire for good marks.

On most tests of deception there are no differences between the pupils of the various grades from the fifth through the eighth; but on certain tests there is a steady increase in deception from the sixth to the eighth, with the fifth grade taking first rank in deceptive behavior, however.

There are no age differences between ten and fourteen; the older children are not less deceiving than the younger ones.

Sex seems to make no difference in scores on deception tests. On some tests and in some groups the girls are more deceptive; on other tests and in other groups the boys are.

Pupils who get high marks in school for deportment are less deceptive than those receiving low marks.

The more intelligent a child is, the more honest is he likely to be.

Children who are well-mannered and are well treated by their parents are less deceptive than other children.

Emotional children are more likely to be deceptive than others.

If parents put too much pressure on school work, their children are likely to cheat.

Children who come from homes with one maid deceive less than those from homes without a maid or those with two or more maids.

It very seldom happens that an unselfish child is also emotionally unstable.

There is a closer association between school marks and service than between intelligence and service. This suggests the influence of general classroom adjustment.

In general, children who are accelerated are more coöperative than the normally placed, and the retarded school children are less coöperative.

Boys and girls who are very clean are also more intelligent and more coöperative than others.

Boys and girls who are very sociable do not rank at the top of the scale of service to others, as might have been expected, but tend to remain in the middle of the scale. The sociable youngsters are not the most coöperative, nor are they the least.

If boys are in the majority in the class, they tend to be more coöperative and also more deceptive. If girls are more numerous, they take the lead in service and deceit.

In the matter of coöperation, pupils tend to resemble their friends considerably more than their classmates in general, especially if there is a feeling of mutual friendship and the friends are in the same class.

When a group is divided into teams, the pupils show far more unselfish loyalty than when the entire class as a whole is pitted against other classes in the same school.

Tests seem to show that "persistence" is chiefly a matter of interest in either the activity or its net results.

The National Drama Week, February 8-14, 1931, 15 West 44th Street, New York City, again sponsors an annual week, featuring the part which drama plays in the life of the individual, the community, and the nation. The activities of Drama Week serve to dramatize the power of the theatre and its services to culture and education. Churches, women's clubs, and little theatre groups are planning special programs. The radio and the press will coöperate with publicity. Bookstores and libraries will want to take advantage of this national observance to display books about the theatre, the new biographies of actors and actresses, drama histories, and the many popular new plays now appearing in book form simultaneously with presentation on the Broadway stage or in the motion picture theatres. Those who can be in the other cities in the winter will enjoy the opportunities to see, or hear, the things that will be going on,—Music, the Drama, Lectures, etc., etc. Is it not better to see, hear, learn about what is good and helpful instead of criticizing and censuring others.

Book Reviews

TEACHING THE CHILD TO READ. By Samuel W. Patterson, Ph.D. Doubleday, Doran & Company, Inc. A new book that is excellent for Normal Schools and Teachers Colleges. Many people have really never learned how to read. The Chapters follow, by suggestions for research and discussion. The Table of Contents are divided,—Part I, The Importance and the Nature of Reading; Part II, Reading in the Grades,—The Period of Reading Habit Formation; Part III, Reading in the Middle Grades,—Varied Reading Activities; Part IV, Reading in the Junior High School Grades. The price is $2.50.

THE CHURCH, THE STATE, AND EDUCATION, IN VIRGINIA. By Sadie Bell. 796 pages. An Explanation of Present Day Attitudes Toward Religion in Education from the Point of View of Their Historical Development. It is "To My Father and Mother." The book is placed on religion and public education. Such Chapters as: "The Founding of the Colony and Religion; The Gospel and Education Among the Indians; The Civil Government and Religion; Education as Affected by the Integration of Church and State; Part II, During the Separation of the Church and State; Struggle for Educational Control, etc.; Part III, During the Period of Co-operation Without Alliance." The Science Press Printing Company, Philadelphia.

SYSTEMATIZING THE WORK OF SCHOOL PRINCIPALS FOR ELEMENTARY AND SECONDARY SCHOOL AND JUNIOR COLLEGE EXECUTIVES AND THEIR ASSISTANTS. By M. Evan Morgan, M.A., Erwin C. Cline, M.A. Educational Executives' Series, Carlos B. Ellis, M.A. Professional and Technical Press, New York (420 Lexington Ave.). General Principles of School Administration, Special Activities, Discipline, Records and Reports, Building, Equipment, Supplies, Janitors, The Closing of School, etc., are the themes given. An extremely helpful book for those who are at the job of teaching.

SUPERVISING EXTRA-CURRICULAR ACTIVITIES in the American Secondary School. By Paul W. Terry, Professor of Education, University of Alabama. 304 pages. $2.50. McGraw-Hill Book Company, Inc. (370 Seventh Ave., New York). Quoting this book in the "Contents," Part I treats of Historical and Theoretical Backgrounds; Part II, Student Participation in the Government of School; Part III, Important Types of Student Organizations; and Part IV, Problems of Organization and Supervision. The reader will recognize the fullness and carefulness of the author.

PRINCIPLES OF CLOTHING SELECTION. Revised Edition. By Helen Goodrich Buttrick (formerly Associate Professor of Home Economics at Michigan Agricultural College. Drawings by Gertrude Spaller Kinder. The Macmillan Company. Aims at developing a new viewpoint that will lead women to select clothing on the basis of its "aesthetic, hygienic and economic values."

By the Macmillan Company we have, WORK-TEST MANUAL IN AMERICAN HISTORY. By W. A. Butcher, M.A., Principal of John F. Nuner School, South Bend, Indiana. Revised Edition. Price 64 cents. The pages give the beginning of important matters, and the students fill them out.

DEPARTMENT OF SUPERINTENDENCE EIGHTH YEARBOOK. Published by The Department, 1201 16th Street Northwest, Washington, D. C. (February, 1930). In this book The Superintendent Surveys Supervision in twelve helpful chapters in 343 pages. Then there are more than a hundred pages of Official Records.

WORK-TEST BOOK IN PHYSICS. By A. W. Hurd. The Macmillan Company, New York. Paper covers. Price 46 cents. It gives the student the opportunity to fill out sentences where he must fill out the true words that should be true in that sentence.

About the same sort of book, only in Arithmetic, is D. C. Heath and Company's PRIMARY ARITHMETIC PAD (Number Three). By M. S. Robertson (Baton Rouge, La.) and L. S. Rugg (Alexandria, La.).

SCHOOL BETTERMENT STUDIES. Volume 2, Number 3. WHAT IS EDUCATION? By L. A. Sherman (University of Nebraska). Henry C. Frick, 465 Union Trust Building, Pittsburgh, Pa. The 40 pages of this book "Helps Organize the Cultural Wealth of the World to Meet the Needs of the Child Through School."

In Heath and Company's "Supplementary Readers" we have DOCAS, THE INDIAN BOY OF SANTA CLARA, by Genevra Sisson Snedden; and THE TALES OF MOTHER GOOSE, As First Collected by Charles Welsh, Introduction by M. V. O'Shea, Illustrated by D. J. Monro, after drawings by Gustave Dore. And by Heath, PLAYMATES, Book Two, By Mollie Weiss. Also CASTLE BLAIR, by Flora L. Shaw, Introduction by Mrs. Mary A. Livermore. And these all are useful in the schools in which they are appropriated.

NATIONAL FORENSIC LEAGUE. Ray Cecil Carter, National President, High School, Albany, N. Y. A brief statement showing how to get a charter from this national organization. Executive Council, Ray Cecil Carter, at the High School at Albany, N. Y.

In THE AMERICAN STANDARD BIBLE READERS. Old Testament Primer, we have, from Thomas Nelson and Sons, New York, the following, viz.: FIRST BIBLE STORIES, by Jessie Eleanor Moore, Illustrated by H. D. Giesen; JESUS AND THE CHILDREN, by Ethel L. Smithers, Illustrated by Alice Carsey; and STORIES OF LONG AGO, by Mildred J. McArdle, Illustrated by H. D. Gieson; and BIBLE STORIES TO READ, by Jessie Eleanor Moore, Illustrations by Richard A. Holberg. All of these books are illustrated well and the stories are such as young people will read and get the meaning of the teachings of the Bible.

FROM THE OLD TO THE NEW EDUCATION. By William A. Baldwin (Springfield, Mass.). New England Publishing Company, Boston, Mass. The author has been for twenty-seven years Principal of Hyannis State Normal School, and has been the author of other books. He knows how to make a book, and this is one. He tells many things that we should know, and how to get it. Every one should read "The Old and the New Education" in this book.

THE MODERN WORKER. By Mildred J. Wiese (Chicago High School) and Ruth Redicker (Johns Hopkins University). The Macmillan Company. 610 pages. Advanced Series. This book has been ten years in the making. It is complete. The teaching aspect of the book is excellent for the teacher. The makers of the work state that "It is not built around an unwieldy story framework but makes frequent use of illustrative type cases, pictorial illustrations, and, occasionally, anecdotes to hold the student's interest and to present general principles concretely." It is fully illustrated and the volume will be used, undoubtedly, in many High Schools and elsewhere.

THE WORLD ABOUT US. A General Science. By William Dean Pulvermacher, M.A., LL.B., and Charles H. Vosburgh, M.A. D. C. Heath and Company. It is a book that the pupils will like. It treats of the Air, Fire, Sound, The Weather, The Heavens, Latitude, Longitude and Time, Water, Light and Its Work, Electricity, Human Body and Disease, Protecting the Community, First Aid, etc. 382 pages,—and every one interesting. The Frontispiece is an excellent portrait of Thomas A. Edison.

RELIGION OUTLINES FOR COLLEGES. Course II, Christ and His Church. By John M. Cooper, D.D. The Catholic Education Press, Washington, D. C. This book states that the aim is to help the user to live Christlike and Catholic lives. Better attitudes toward Christ and the Church, and fuller participation in and coöperation with the work of the Church and its Founder. As such, it is an admirable book for students and for any one.

Less pleasing, perhaps, to the young people, but essential, we have "A SECOND COURSE IN ALGEBRA," by Harry C. Barber. Houghton Mifflin Company. Price $1.40. 505 pages, and so save the school boys and girls. But we take that back; if they begin aright and keep on, they will have a knowledge that will help them all through life. This book is made so! And the pupil will find it so.

AN INTRODUCTION TO THE PSYCHOLOGY OF THE CLASSROOM. By Charles Elmer Holley, Ph.D. With a Foreword by Lotus D. Coffman. D. C. Heath and Company. Deals with the things that are of importance to every one, and that should be taught in every school. Some of the Chapters are as follows, viz.: Nature and Nurture; Some Inherited Factors in the Child's Mental Equipment; The Social Instinctive Tendencies; Individual Differences; Learning Habits in the Classroom; The Theory of Formal Discipline; The Measurement of Mental Abilities; Mental Abnormalities; and Mental Hygiene in the Classroom.

EDUCATIONAL ACHIEVEMENT IN RELATION TO INTELLIGENCE. By Charles W. St. John. Harvard Studies in Education, Volume 15. The book gives a reader the knowledge of how teachers' marks, promotions and scores in standard tests work in certain elementary grades.

BOSTON UNIVERSITY CATALOGUE ISSUE FOR 1930-1931. Boston, Mass. This Catalogue is of 941 pages,—showing one of the great Universities of the United States. It tells us about the Faculty and the Courses, where people (male and female) can get education in Liberal Arts, Business Administration, Practical Arts and Letters, Music, Theology, Law, Medicine, Education, Religious Education and Social Service, etc. Every thing relating to education is stated in this book. It has an enrollment of 15,455 Students and enough Professors to teach them.

READING WITH A PURPOSE. International Relations. By Isaiah Bowman. The American Library Association. Cloth, 50 cents; Paper, 35 cents.

DIAGNOSTIC AND REMEDIAL TEACHING IN ARITHMETIC. By Leo J. Brueckner. The John C. Winston Company, Philadelphia, Penn. A book of 341 pages. The Preface says that "This book is written for students of the teaching of arithmetic and for the teacher in the elementary school who is face to face with the question of what can be done to reduce the number of failures in the subject of arithmetic, and to eliminate the difficulties which interfere with pupil progress." It seems to do this,—and other things that will be useful for both teacher and pupil. The text is clear and admirable.